

ABSTRACT

Digital signatures are not valid indefinitely but only during the validity periods of their authentication certificates, which themselves are not indefinite but typically expire in order to limit the chances for compromise of the digital signatures. This poses a problem for electronic information objects that are intended to have legal weight for periods longer than the remaining validity period of a signature. There are thus provided methods of handling stored electronic original objects that have been created by signing information objects by respective transfer agents, submitting signed information objects to a trusted custodial utility, validating the submitted signed information objects by at least testing the integrity of the contents of each signed information object and the validity of the signature of the respective transfer agent, and applying to each validated information object a date-time stamp and a digital signature and authentication certificate of the trusted custodial utility. One method includes re-validating an electronic original object by verifying the digital signature of the trusted custodial utility applied to the object and applying to the re-validated object a current date-time stamp and a digital signature and current authentication certificate of the trusted custodial utility. Another method includes the step of creating an object-inventory from at least one stored electronic original object, where the object-inventory includes an object identifier and a signature block for each object from which the object-inventory is created. A date-time stamp and a digital signature and authentication certificate of the trusted custodial utility is applied to the object-inventory. Other methods involve handling information objects that are transferable records according to specified business rules, which avoids problems that can arise if copies of the transferable records can be mistaken for originals.